

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1, 4-12 and 16-27 will now be active in this application.

REQUEST FOR RECONSIDERATION

Applicants wish to thank Examiner Kuhns for indicating allowability of Claims 5, 11 and 14 if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

It is an object of the present invention to provide blow-moldings which are light-weight and have high strength per weight, good rigidity, good heat resistance, good sound absorption, good heat insulation and good sound insulation which are produced at low costs and which are useful for parts of inlets of internal-combustion engines.

Accordingly, the present invention as set forth in **amended Claim 7** relates to a blow molding of a thermoplastic resin, comprising:

from 15 to 70% by weight of inorganic fibers having a mean fiber length of from 1 to 20 mm;

wherein said blow molding has a porosity of from 10 to 90%.

In contrast, Masui et al fail to disclose or suggest a blow molding as claimed. Masui et al disclose a plastic article of fiber-containing resin which is obtained by pre-heating a thermoplastic resin sheet to obtain an expanded sheet and then shaping the expanded sheet between two molds (Masui et al, Example 1 at col. 16-17). Thus, the article of Masui et al

cannot have a hollow body. In fact, a hollow body is not desired, since Masui et al's object is to enhance the freedom of design and size of sound-absorbing molding material. Thus, a person of ordinary skill in the art would never think of applying blow-molding technique for molding the product of Masui et al. The use of blow molding would substantially limit the shape of resulting product in Masui et al. Thus, there is no suggestion or motivation in Masui et al to use blow-molding to form an article. Further, though Masui et al mentions to the spring-back function, there is no decompression within a hollow body (i.e. parison) for expanding the inner circumference of the hollow body.

Therefore, the rejection of Claims 7-9 under 35 U.S.C. §102(e) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Masui et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claims 1, 3, 4, 6, 13 and 15 under 35 U.S.C. §103(a) over Rhodes is respectfully traversed.

Amended Claim 1 relates to a blow-molding method for fiber-containing thermoplastic resins, comprising:

holding a parison comprising an inorganic fiber-containing, melt-expandable an thermoplastic resin, between a pair of facing splits of a mold;
blowing said parison to shape it; and
thereafter reducing a gaseous pressure inside said parison, to obtain a blow-molding.

In contrast, Rhodes fails to disclose or suggest reducing a gaseous pressure inside said parison as claimed. The specification of the present invention describes the function of the pressure reduction at page 10, last paragraph, and at page 11, 2nd paragraph, as follows:

“In general, when the inorganic fiber-containing thermoplastic resin is

extruded out to be a parison, it begins to expand, but the pores existing therein will be often crushed away by the pressure of the blowing vapor applied to the parison. In that case, the resin layer of the final blow molding from the parison must be again expanded so as to form pores therein. The above-mentioned operation for pressure reduction is for again expanding the resin layer of the blow molding."

"In general, the melt-expandable resin layer of the blow molding will expand in the direction inside the mold when the pressure thereto is reduced. As a result, its thickness increases, and pores are formed in the thus-expanded resin layer, and the apparent density of the resin layer decreases. "

Rhodes is directed only to a general-type blow-molding process, where a parison of fiber-reinforced resin is blow-molded in a die (Rhodes, col. 3, lines 27-34, Claim 1). There is no disclosure or suggestion to reduce the gaseous pressure inside the parison after the blowing and shaping. However, as if there is no pressure reduction, it is likely that the blow molded article is inferior because the pores were crushed away by the blow molding pressure.

Therefore, the rejection of Claims 1, 3, 4, 6, 13 and 15 under 35 U.S.C. §103(a) over Rhodes is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

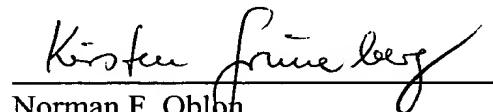
In addition, the rejection of Claims 2, 10 and 12 under 35 U.S.C. §103(a) over Ertle et al is respectfully traversed.

Claims 2, 10 and 12 now depend directly or indirectly on Claim 1. Since Claim 1 was not rejected over Ertle et al, these dependent Claims should not be rejected over this reference. Therefore, the rejection of Claims 2, 10 and 12 under 35 U.S.C. §103(a) over Ertle et al is believed to be unsustainable and should be withdrawn.

Applicants submit that the present application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

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IN THE CLAIMS

Claims 3 and 13-15. (Canceled)

--1. (Amended) A blow-molding method for fiber-containing thermoplastic resins, [which comprises] comprising:

holding a parison [made of] comprising an inorganic fiber-containing, melt-expandable an thermoplastic resin, between a pair of facing splits of a mold[,]; blowing [the] said parison to shape it[,]; and thereafter reducing [the] a gaseous pressure inside [it] said parison, to obtain a blow-molding.

2. (Amended) [A] The blow-molding method [for fiber-containing thermoplastic resins, which comprises holding a parison made of a] according to claim 1, wherein said inorganic fiber-containing, melt-expandable thermoplastic resin [that contains] comprises a foaming agent [and inorganic fibers, between a pair of facing splits of a mold, and blowing the parison to shape it].

4. (Amended) The blow-molding method as claimed in claim 1, wherein said [the inorganic fibers to be in the] inorganic fiber-containing, melt-expandable thermoplastic resin comprises inorganic fibers [are] selected from the group consisting of glass fibers, carbon fibers and metal fibers[,]; and

wherein a [the] fiber content of [the] said inorganic fiber-containing, melt-expandable thermoplastic resin falls between 15 and 70 % by weight, based on a total weight of said resin.

5. (Amended) The blow-molding method as claimed in claim 1, wherein [the] said parison is prepared by melt-kneading a molding material that [contains] comprises at least fiber-reinforced thermoplastic resin pellets[,]; and

wherein said [the] fiber-reinforced thermoplastic resin pellets each have an overall length of from 3 to 100 mm[, and];

wherein said fiber-reinforced thermoplastic resin pellets contain from 20 to 90 % by weight of inorganic fibers having a length equal to the overall length of said [the] fiber-reinforced thermoplastic resin pellets; and

wherein said inorganic fibers are aligned parallel to each other in each pellet.

6. (Amended) The blow-molding method as claimed in claim 1, wherein at least a part of [the] said inorganic fiber-containing, melt-expandable thermoplastic resin is modified with an unsaturated carboxylic acid or its derivative, to obtain a modified resin.

7. (Amended) A blow molding of a thermoplastic resin, comprising: [which contains] from 15 to 70% by weight of inorganic fibers having a mean fiber length of from 1 to 20 mm;

wherein said blow molding [and] has a porosity of from 10 to 90%.

8. (Amended) The blow molding as claimed in claim 7, wherein the thermoplastic resin is selected from the group consisting of polypropylene resins, polyamide resins, polyester resins and polycarbonate resins.

9. (Amended) A part of an inlet system for internal-combustion engines, comprising:

[The] the blow molding as claimed in claim 7[, which is for the parts of inlet systems for internal-combustion engines].

10. (Amended) The blow-molding method as claimed in claim 2, wherein said [the inorganic fibers to be in the] inorganic fiber-containing, melt-expandable thermoplastic resin comprises inorganic fibers [are] selected from the group consisting of glass fibers, carbon fibers and metal fibers[,]; and

wherein a [the] fiber content of [the] said inorganic fiber-containing, melt-expandable thermoplastic resin falls between 15 and 70 % by weight, based on a total weight of said resin.

11. (Amended) The blow-molding method as claimed in claim 2, wherein [the] said parison is prepared by melt-kneading a molding material that [contains] comprises at least fiber-reinforced thermoplastic resin pellets[,]; and

wherein said [the] fiber-reinforced thermoplastic resin pellets each have an overall length of from 3 to 100 mm[, and];

wherein said fiber-reinforced thermoplastic resin pellets contain from 20 to 90 % by weight of inorganic fibers having a length equal to the overall length of said [the] fiber-reinforced thermoplastic resin pellets; and

wherein said inorganic fibers are aligned parallel to each other in each pellet.

12. (Amended) The blow-molding method as claimed in claim 2, wherein at least a part of [the] said inorganic fiber-containing, melt-expandable thermoplastic resin is modified with an unsaturated carboxylic acid or its derivative, to obtain a modified resin--

Claims 16-27. (New)